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(71) Applicant (for all designated States except US):  
**TRUSTEES OF BOSTON UNIVERSITY** [US/US];  
One Sherborn Street, Boston, MA 02215 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ODDSSON, Lars, I., E.** [IS/US]; 905 Beacon Street, Boston, MA 02215 (US).  
**MEYER, Peter, F.** [US/US]; 27 Elliot Street, Newton, MA 02461 (US).

(74) Agents: **GAGNEBIN, Charles, L., III** et al.; Weingarten, Schurgin, Gagnebin & Lebovici, LLP, Ten Post Office Square, Boston, MA 02109 (US).

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**Declarations under Rule 4.17:**

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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(54) Title: **SENSORY PROSTHETIC FOR IMPROVED BALANCE CONTROL**

(57) **Abstract:** A feedback device for measuring balance related information, and for producing a stimulation of the skin that encodes that information in a way that is useful to the wearer of the device. At least one sensor detects balance information and transmits at least one balance information signal to a signal processing subsystem. The signal processing subsystem converts the received balance information signal into at least one stimulation control signal. The signal processing subsystem then transmits the stimulation control signal to at least one stimulator, which provides stimulation to a wearer of the device reflecting the stimulation control signal received from the signal processing subsystem.

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